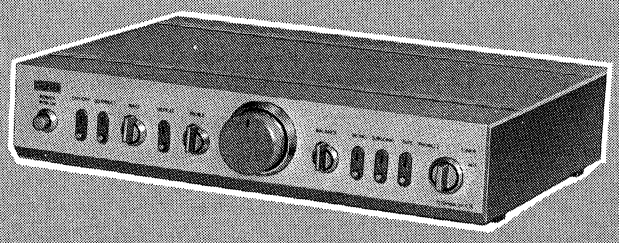
SERVICE DATA
FILE NO. 170-070

TOSHIBA

STEREO PREAMPLIFIER

SY-C15



SPECIFICATIONS

Input Sensitivity/ Impedance:	PHONO 1, 2 2.5mV/47K ohm TUNER 150mV/47K ohm AUX/TAPE 150mV/47K ohm	Frequency Response:	AUX 10 Hz ~ 100 kHz $^{+0}_{-2}$ dB PHONO 20 Hz ~ 20 kHz ±0.2 dB (RIAA equalization)
Output Level:	TAPE REC 150mV PRE OUT 1V	Phono Overload Level:	300mV
Total Harmonic Distortion:	0.01%	GENERAL	
S/N (IHF A Network):	PHONO 88 dB AUX 106 dB	Power Supply:	AC 220V 50 Hz or AC 240V 50 Hz
Tone Control:	BASS (at 100 Hz) ±10 dB TREBLE (at 20 kHz) ±10 dB	Power Consumption:	12W
Filter:	SUBSONIC (at 10 Hz) –6 dB/Oct	Weight:	2.7 kg
		Dimensions (mm):	257(W) x 54(H) x 208(D)

Specifications are subject to change without notice.

TE, TU, AY

1. OPERATING CONTROLS

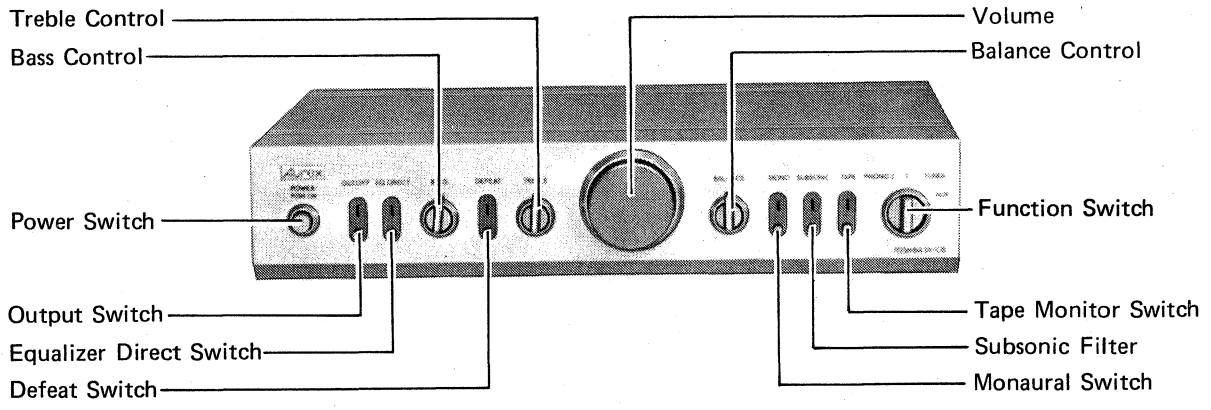


Figure 1.

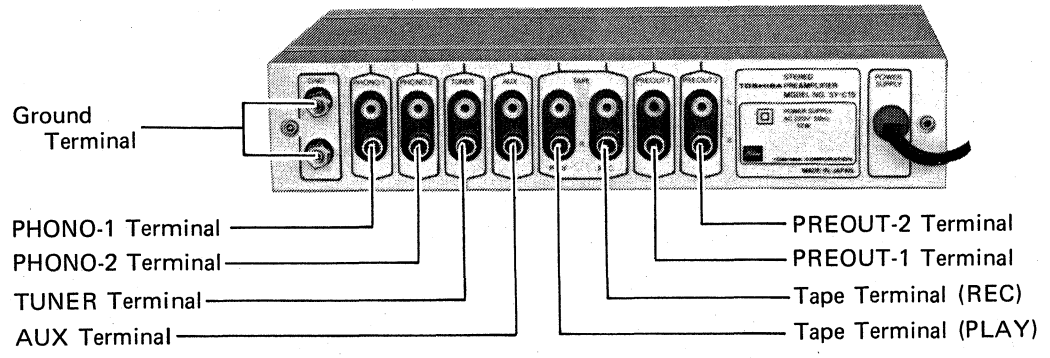


Figure 2.

2. DISASSEMBLY INSTRUCTIONS

PANEL REMOVAL

1. Remove 3 Knobs ①. See figure 3.
2. Remove 4 Screws ② and ③. See figure 4.
3. Remove the panel from the Set.

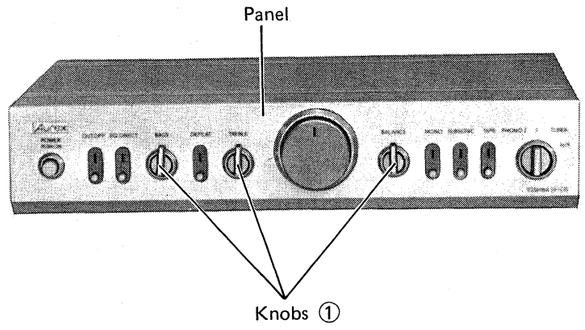


Figure 3.

BOTTOM PLATE REMOVAL

1. Remove the Panel. See figure 3 and 4.
2. Remove 6 Screws ④. See figure 4.
3. Remove the bottom plate from the set.

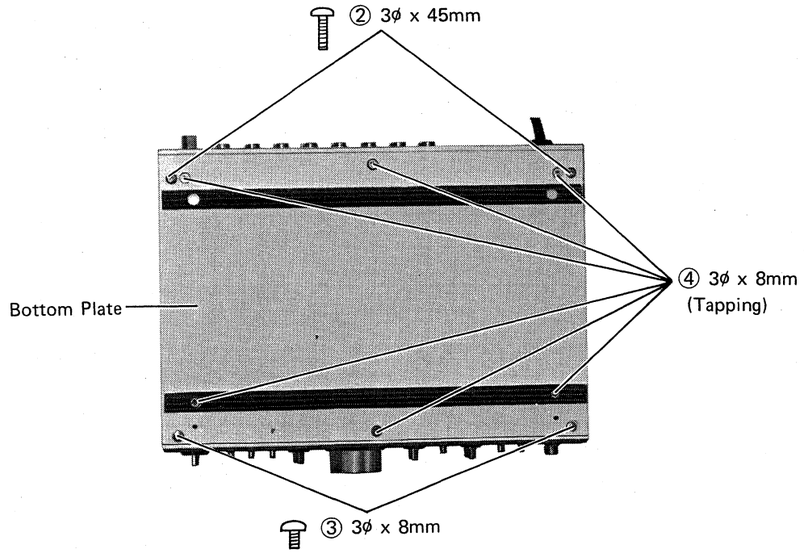


Figure 4.

3. NEUTRAL VOLTAGE ADJUSTMENTS

1. Never apply signal.
2. Connect DC voltmeter to chassis ground.
3. Tone control BASS MAX
4. Connect DC voltmeter to test pin and adjust semi-fixed variable resistor to obtain 0±3mV.

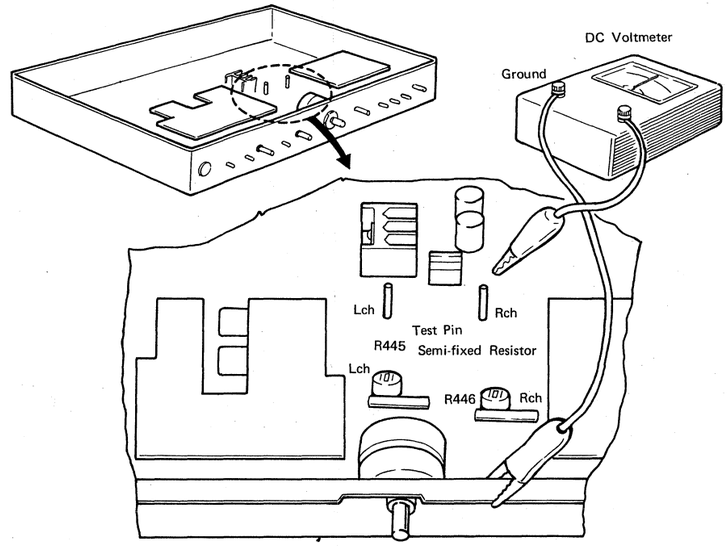


Figure 5.

4. BLOCK DIAGRAM

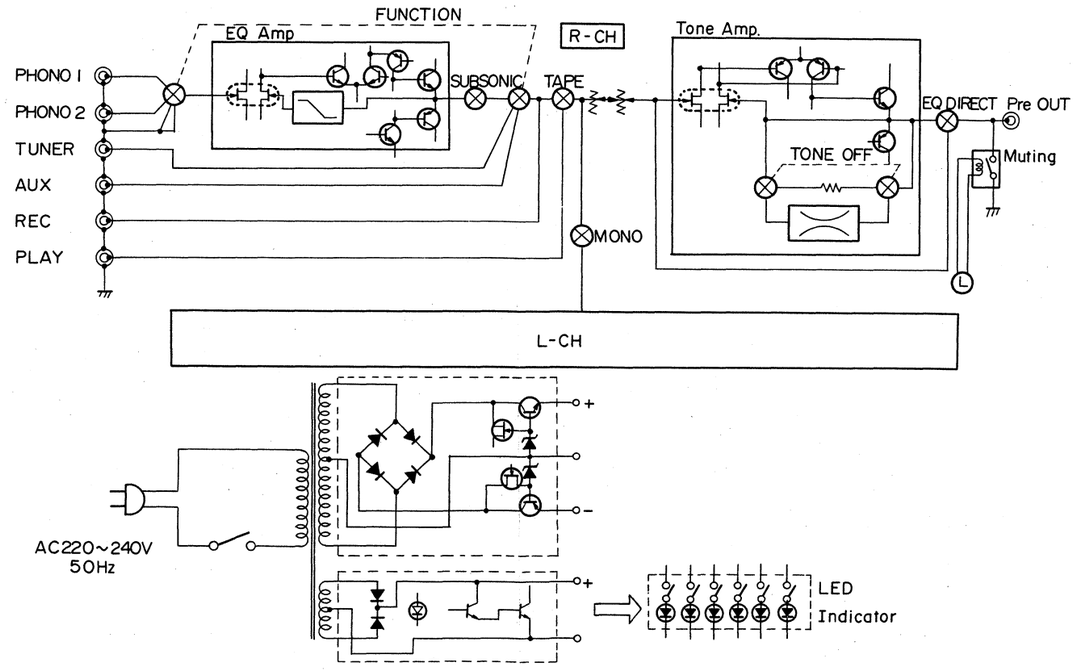
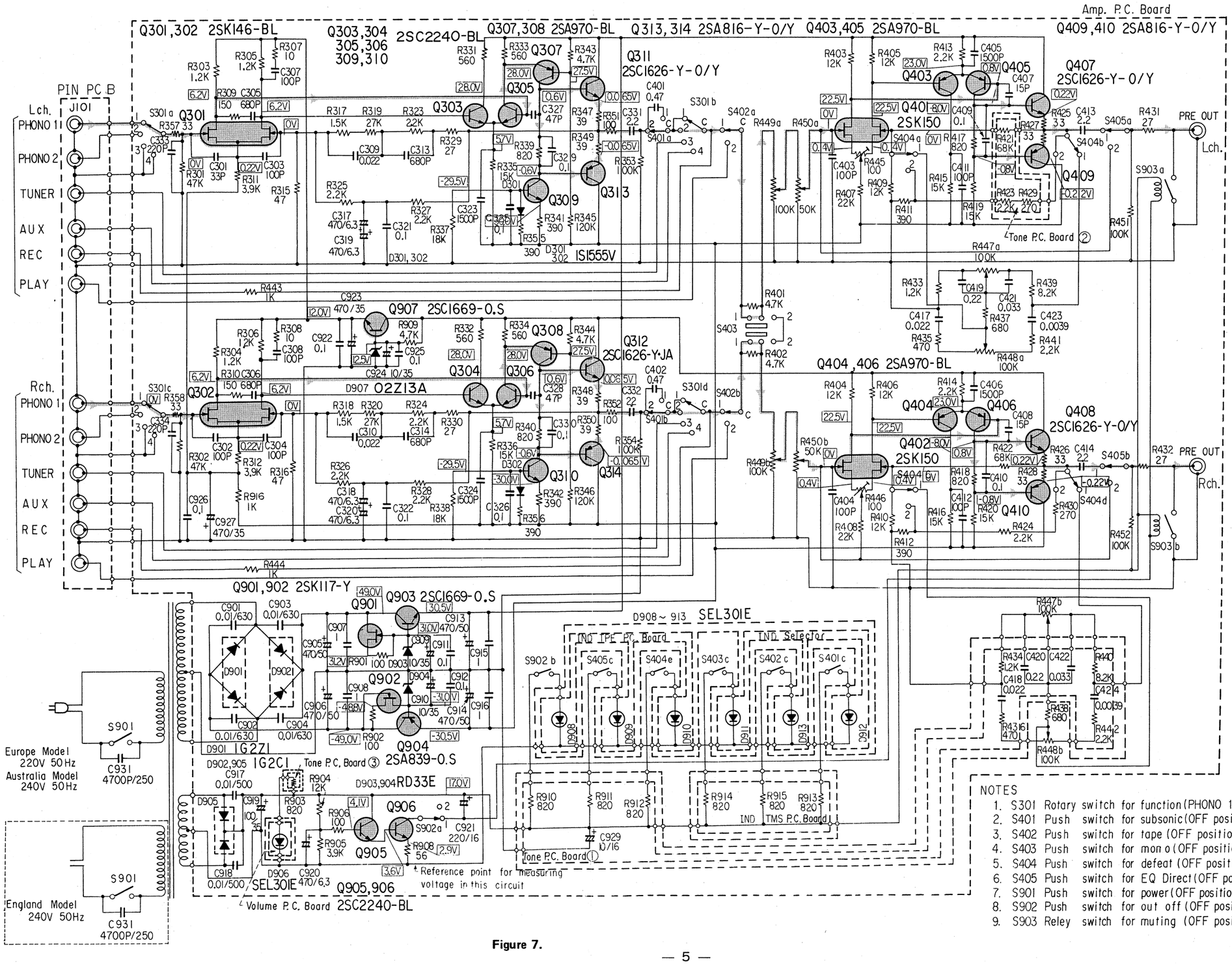


Figure 6.

5. SCHEMATIC DIAGRAM



NOTES

1. S301 Rotary switch for function (PHONO 1 position).
2. S401 Push switch for subsonic (OFF position).
3. S402 Push switch for tape (OFF position).
4. S403 Push switch for mono (OFF position).
5. S404 Push switch for defeat (OFF position).
6. S405 Push switch for EQ Direct (OFF position).
7. S901 Push switch for power (OFF position).
8. S902 Push switch for out off (OFF position).
9. S903 Reley switch for muting (OFF position).

Figure 7.

6. P.C. BOARD PARTS LOCATIONS

P.C. BOARD PARTS LOCATIONS

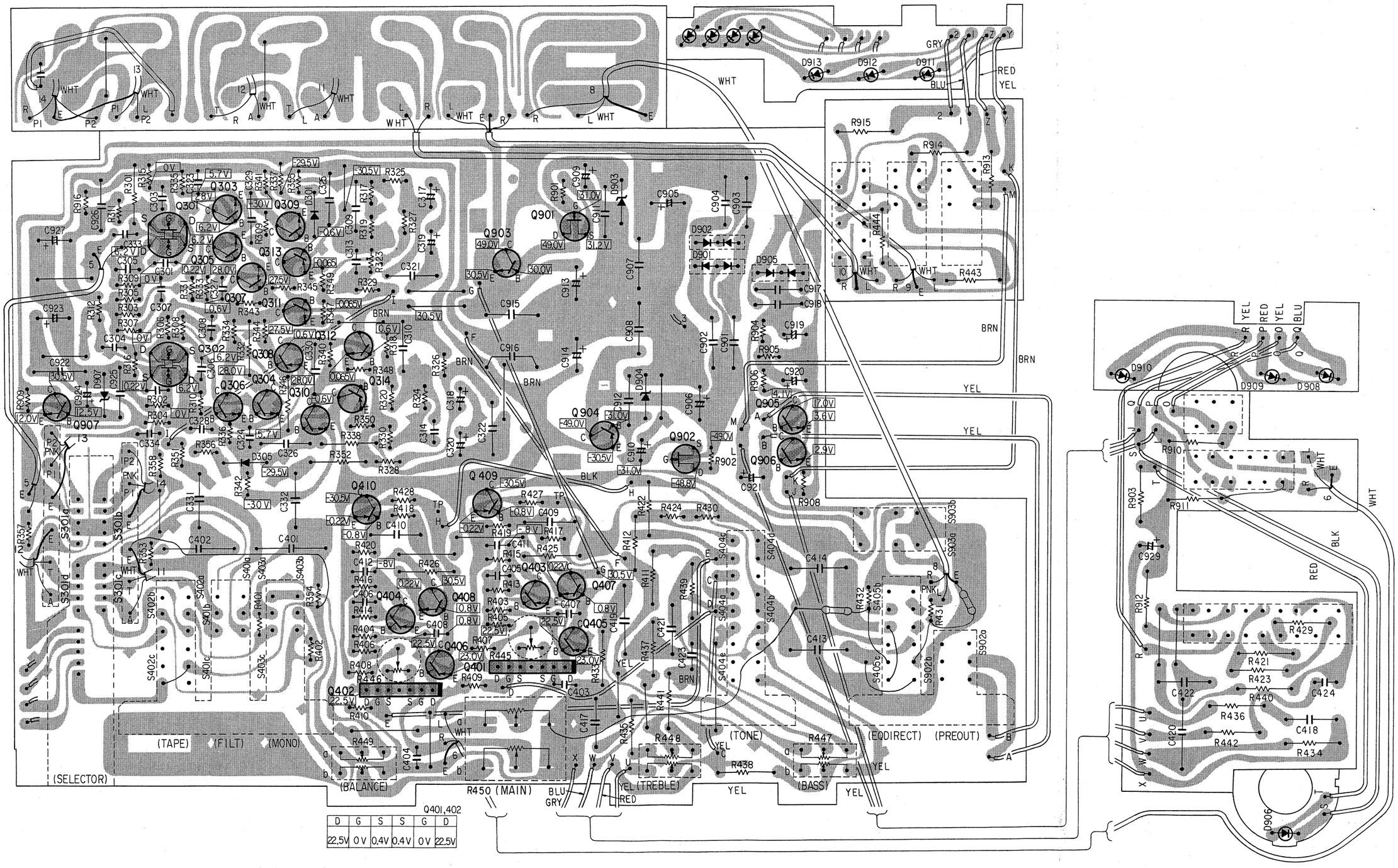
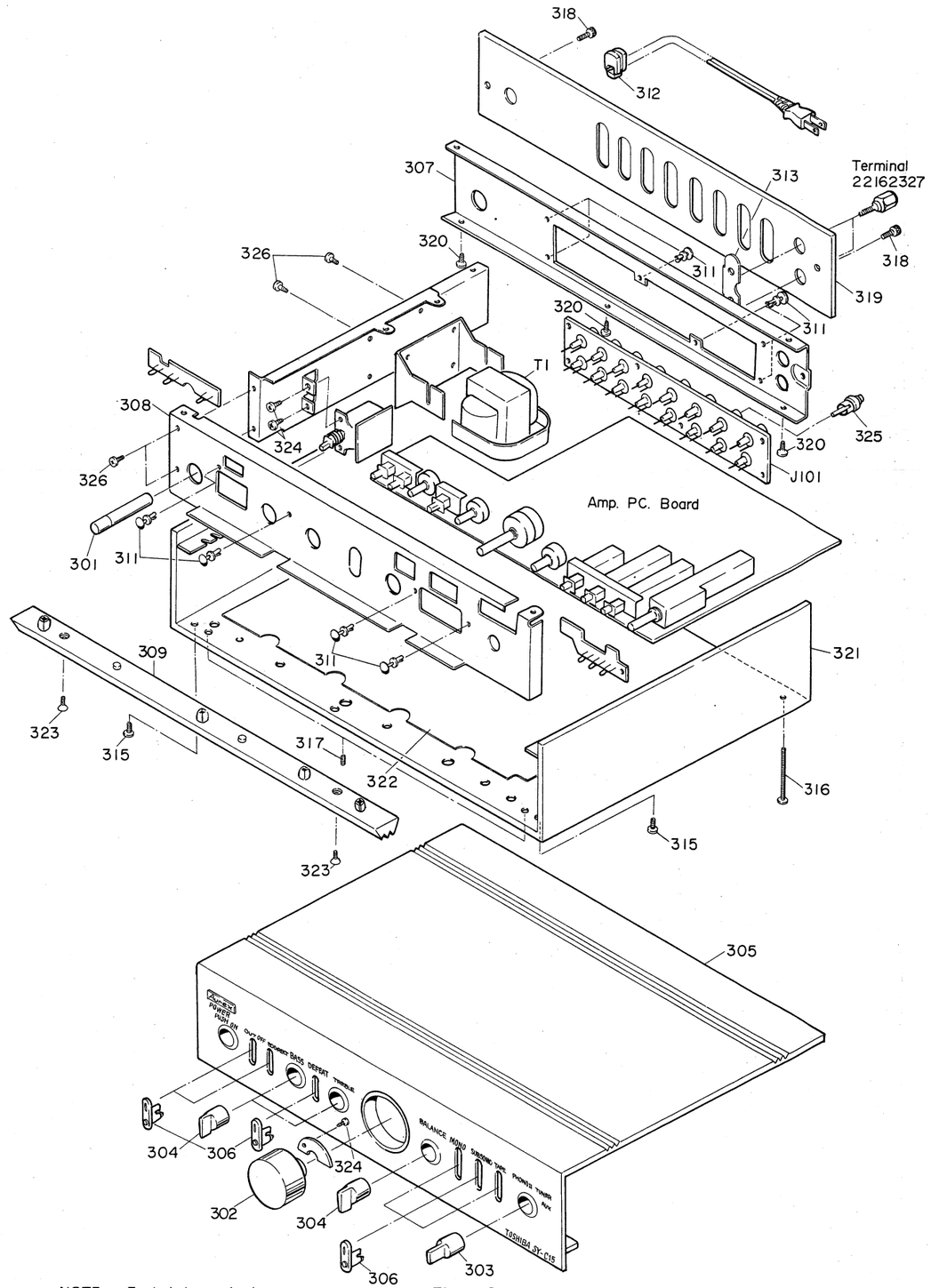


Figure 8.

7. CABINET PARTS LOCATIONS



NOTE: Excluded parts in the Parts List are not available as replacement parts.

Figure 9.

8. PARTS LIST

Symbol No.	Part No.	Description
		CABINET PARTS
301	22824291	Knob, Power
302	22826222	Knob, Volume
303	22826223	Knob, Function
304	22826224	Knob, Bass/Treble/Balance
305	22821458	Panel Ass'y
306	22824264	Knob, Out Off/EQ Direct/ Defeat/Mono/Subsonic/Tape
309	22874045	Leg
311	22705020	Rivet, 3ø x 4.5mm
312	25844035	Bushing, Power Cord
315	22707327	Screw (BID), 3ø x 8mm
313	22707328	Screw (BID), 3ø x 45mm
317	22701492	Screw, Special
318	22707028	Screw, Special
319	22843676	Panel, Jack (Europe)
	22844155	Panel, Jack (England/Australia)
321	22843621	Chassis
323	20794138	Screw, 3ø x 8mm, Tapping
324	22701321	Screw (BID), 3ø x 6mm
325	22164311	Plug, US 1P
		TRANSISTORS AND DIODES
Q301, 302		Transistor, 2SK146-BL
Q303, 304		Transistor, 2SC2240-BL
Q305, 306		Transistor, 2SC2240-BL
Q307, 308		Transistor, 2SA970-BL
Q309, 310		Transistor, 2SC2240-BL
Q311, 312		Transistor, 2SC1626-Y-O/Y
Q313, 314		Transistor, 2SA816-Y-O/Y
Q401, 402		Transistor, 2SK150-GR-Y/BL
Q403, 404		Transistor, 2SA970-BL
Q405, 406		Transistor, 2SA970-BL
Q407, 408		Transistor, 2SC1626-Y-O/Y
Q409, 410		Transistor, 2SA816-Y-O/Y
Q901, 902		Transistor, 2SK117-Y
Q903		Transistor, 2SC1669-O.S
Q904		Transistor, 2SA839-O.S
Q905, 906		Transistor, 2SC2240-BL
Q907		Transistor, 2SC1669-O.S
D301, 302		Diode, 1S1555V
D901		Diode, 1G2Z1
D902, 903		Diode, 1G2C1
D903, 904	22115347	Diode, RD33E
D906	22115473	Diode, SEL301E
D907		Diode, 02Z13A
D908, 909, 910, 911	22115473	Diode, SEL301E
D912, 913	22115473	Diode, SEL301E
		ELECTRICAL PARTS
T1	22223274	Transformer, Power (Europe)
	22223287	Transformer, Power (England/ Australia)
S301	22195185	Switch, Rotary, Function
S401, 402, 403	22195229	Switch, Push, Subsonic/Tape/Mono
S404	22195184	Switch, Push, Defeat
S405, 902	22195183	Switch, Push, Out Off/EQ Direct
S901	22146295	Switch, Push, Power
S903	22148650	Relay
J101	22163702	Jack, US 16P
	22162327	Terminal, Ground
	22176286	Cord, Power (Europe)
	22176536	Cord, Power (England)
	22176588	Cord, Power (Australia)
		CAPACITORS
		J = ±5%, K = ±10%, G = ±2%, Z = –20+80%, P = –0+100%
C301, 302	22380079	Polystyrene Film, 33pF, J, 125V
C303, 304	22388101	Polystyrene Film, 100pF, K, 125V
C305, 306	22388681	Polystyrene Film, 680pF, K, 125V
C307, 308	22388101	Polystyrene Film, 100pF, K, 125V
C309, 310	22370242	Metalized Polyester Film (V Type) 0.122mfd, G, 250V
C313, 314	22370241	Metalized Polyester Film (V Type) 0.0345mfd, G, 400V
C317, 318	22442471	Electrolytic, 470mfd, 6.3V
C319, 320	22442471	Electrolytic, 470mfd, 6.3V
C321, 322	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C323, 324	22380084	Polystyrene Film, 1500pF, J, 125V
C325, 326	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C327, 328	22380080	Polystyrene Film, 47pF, J, 125V
C329, 330	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C331, 332	22370209	Metalized Polyester Film (V Type) 2.2mfd, K, 250V
C333, 334	22380097	Polystyrene Film, 220pF, J, 500V
C401, 402	22370187	Metalized Polyester Film (V Type) 0.47mfd, K, 250V
C403, 404	22388101	Polystyrene Film, 100pF, K, 125V
C405, 406	22380084	Polystyrene Film, 1500pF, J, 125V
C407, 408	22380065	Polystyrene Film, 15pF, J, 125V
C409, 410	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C411, 412	22388101	Polystyrene Film, 100pF, K, 125V
C413, 414	22370209	Metalized Polyester Film (V Type) 2.2mfd, J, 250V
C417, 418	22370190	Metalized Polyester Film (V Type) 0.022mfd, K, 400V

Symbol No.	Part No.	Description
C419, 420	22370227	Metalized Polyester Film (V Type) 0.22mfd, K, 250V
C421, 422	22370195	Metalized Polyester Film (V Type) 0.033mfd, J, 400V
C423, 424	22388392	Polystyrene Film, 3900pF, K, 125V
C901, 902	22370181	Metalized Polyester Film (V Type) 0.01mfd, K, 630V
C903, 904	22370181	Metalized Polyester Film (V Type) 0.01mfd, K, 630V
C905, 906	22448471	Electrolytic, 470mfd, 50V
C907, 908	22370208	Metalized Polyester Film (V Type) 1mfd, K, 250V
C909, 910	22447100	Electrolytic, 10mfd, 35V
C911, 912	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C913, 914	22448471	Electrolytic, 470mfd, 50V
C915, 916	22370208	Metalized Polyester Film (V Type) 1mfd, K, 250V
C917, 918	22340030	Ceramic, 0.01mfd, P, 500V
C919	22447101	Electrolytic, 100mfd, 35V
C920	22442471	Electrolytic, 470mfd, 10V
C921	22445221	Electrolytic, 220mfd, 16V
C922	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C923	22447471	Electrolytic, 470mfd, 35V
C924	22447100	Electrolytic, 10mfd, 35V
C925	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C926	22370186	Metalized Polyester Film (V Type) 0.1mfd, K, 250V
C927	22447471	Electrolytic, 470mfd, 35V
C929	22445100	Electrolytic, 10mfd, 16V
C931	22340090	Ceramic, 4700pF, Z, 250V
RESISTORS		
All resistors are ¼W, ±5%, carbon film unless otherwise noted.		
R301, 302	22555473	47K ohm
R303, 304	22555122	1.2K ohm
R305, 306	22555122	1.2K ohm
R307, 308	22555100	10 ohm
R309, 310	22555151	150 ohm
R311, 312	22555392	3.9K ohm
R315, 316	22540153	47 ohm, ±1%
R317, 318	22555152	1.5K ohm
R319, 320	22550233	24K ohm, ±1%
R323, 324	22540155	2.2K ohm, ±1%
R325, 326	22555222	2.2K ohm
R327, 328	22555222	2.2K ohm
R329, 330	22555270	27 ohm
R331, 332	22555561	560 ohm
R333, 334	22555561	560 ohm

Symbol No.	Part No.	Description
R335, 336	22555153	15K ohm
R337, 338	22555183	18K ohm
R339, 340	22555821	820 ohm
R341, 342	22555391	390 ohm
R343, 344	22555472	4.7K ohm
R345, 346	22545124	120K ohm
R347, 348	22555390	39 ohm
R349, 350	22555390	39 ohm
R351, 352	22555101	100 ohm
R353, 354	22555104	100K ohm
R355, 356	22555391	390 ohm
R357, 358	22555330	33 ohm
R401, 402	22555472	4.7K ohm
R403, 404	22555123	12K ohm
R405, 406	22555123	12K ohm
R407, 408	22555223	22K ohm
R409, 410	22555123	12K ohm
R411, 412	22555391	390 ohm
R413, 414	22555222	2.2K ohm
R415, 416	22555153	15K ohm
R417, 418	22555821	820 ohm
R419, 420	22555153	15K ohm
R421, 422	22545683	68K ohm
R423, 424	22555222	2.2K ohm
R425, 426	22555330	33 ohm
R427, 428	22555330	33 ohm
R429, 430	22545271	270 ohm
R431, 432	22555270	27 ohm
R433, 434	22545122	1.2K ohm
R435, 436	22545471	470 ohm
R437, 438	22545681	680 ohm
R439, 440	22545822	8.2K ohm
R441, 442	22545222	2.2K ohm
R443, 444	22545102	1K ohm
R445, 446	22658292	100 ohm, Semi-fixed
R447, 448	22651484	100K ohm, Variable, Bass/Treble
R449	22651483	100K ohm, Variable, Balance
R450	22651485	50K ohm, Variable, Volume
R451, 452	22555104	100K ohm
R901, 902	22555101	100 ohm
R903	22545821	820 ohm
R904	22555123	12K ohm
R905	22555392	3.9K ohm
R906	22555101	100 ohm
R908	22555560	56 ohm
R909	22555472	4.7K ohm
R910, 911	22555821	820 ohm
R912, 913	22555821	820 ohm
R914, 915	22555821	820 ohm
R916	22555102	1K ohm
ACCESSORIES		
	22902226	Owner's Manual
	22170388	Cord, Connection